THE MISSION

Greetings, Commander. Your mission is to reach the Arcturan star system and destroy the infamous Gir Draxon, Supreme Overlord of the Arcturan Empire. To give you the greatest possibility of success, Terran High Command has placed Earth's most sophisticated fighting machine, the Raven, at your disposal. It is equipped with the best that Terran technology has to offer: A biphasal Thunder Cannon which fires a volley of two nuclear shells, a Gravitic Scope to locate enemies, an Inviso Cloak to confuse enemies, and Protonic Shields which provide protection from enemy fire. The Raven is extremely powerful, but it is not indestructible. It will explode if either the shields or the energy reserves are totally depleted.

From the command seat of the Raven, you must face Arcturan forces in seven different star systems. In each system, if you are able to survive the enemy assault and destroy enough Arcturan craft, a Warplink will materialize. Driving into this Warplink will transport you to the next star system. If you reach the seventh system, Arcturus, your mission is to locate and destroy Gir Draxon's flagship. Should you succeed, Earth will be saved. Failure may leave your home planet defenceless!

To familiarize yourself with the Raven, refer to the Command Sheet (included in this manual) and take the Raven out for several trial runs.

Two additional sources of information have been provided to acquaint you with your mission. The first of these is THE MISSION BRIEFING, which may be activated by pressing M on the control console once you have seated yourself in the Raven. The briefing contains all of the information that Terran Intelligence has gathered on the Arcturans.

The second source is the advanced section of the RAVEN MANUAL which describes some of the finer points of the Raven and its operation.

The Raven is now being warmed up for your mission.

When you are ready, strap yourself in and prepare to face the wrath of the Arcturan Armada.
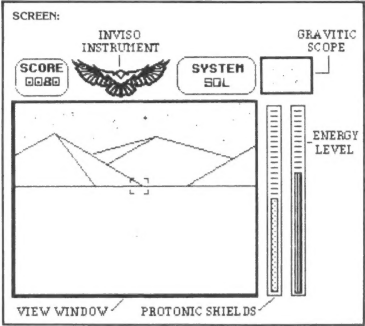
ADVANCED SECTION

This section describes some of the finer points of the Raven and its operation. Before reading this section, it is suggested that you take the Raven out for several experimental runs.

The common name for project XCV Ag1-2 (Type C) was originally "The Nighthawk". However, a bad circuit garbled the Inviso audio feedback so that instead of sounding like the screech of a nighthawk, as it was supposed to, it sounded more like a raven. Everyone involved in the project began to jokingly refer to it as "The Raven". The bad circuit was never replaced, and the new name stuck.

The Raven is Earth's most technologically advanced fighting machine. It is equipped with the following features:

AGRAV GENERATOR (ANTI-GRAVITY GENERATOR). The Agrav generator holds the Raven half a meter off the ground so that it can glide over any surface. This allows the Raven to carry heavier weaponry than conventional assult vehicles without a sacrifice of speed.

INVISIO CLOAK The Inviso Cloak is capable of generating a negative electromagnetic field which makes the Raven invisible for short periods of time.

PROTONIC SHIELDS. These shields absorb virtually every known form of energy and allow the Raven to carry very little armour.

GRAVITIC SCOPE This electromagnetic device permits an overview of the Raven and surrounding terrain, including enemy craft and projectiles.

ZOOM LENS. This viewscreen option permits one to identify distant objects.

BIPHASAL THUNDER CANNON. Earth's finest heavy armament, the Thunder Cannon permits firing of two nuclear shells in rapid succession, each of which is capable of penetrating .1 meters of armour plate.

SPECIFICATIONS FOR XCV Ag1-2 "THE RAVEN"

ARMAMENT: Heavy Cannon 2 shots/round.
PROPULSION: Agrav generator
TOP SPEED: 180 kph
ARMOUR: Very light (Armour is inessential as this unit is equipped with shields).
NOTES: It is also equipped with a class 3 Inviso generator, which allows this unit to become virtually invisible to any sensory devices that detect electromagnetic radiation.

SYSTEM DESCRIPTIONS

BIPHASAL THUNDER CANNON: The cannon fires shells armed with limited nuclear warheads. Each shell is capable of penetrating 1 meters of armour. The Cannon's fire rate is 2 shells per round. Between rounds, there is a delay to allow the next 2 shells to be loaded and armed. The range of the cannon is sufficient to reach targets as far away as 2/3 of the distance from the Raven to the edge of the gravitic scope operating in Normal Mode.

GRAVITIC SCOPE: This device (located in the upper-right corner of the instrument panel) shows a top view of the area surrounding the Raven. The Raven is indicated by the dot in the centre of the scope. Objects which are in front of the Raven will appear above this central dot on the scope. Objects behind will appear below the central dot. The scope locates objects by detecting their gravitational field. It has an advantage over the more traditional radar scope in that it cannot be fooled by electromagnetic tricks employed by Inviso Cloaking devices. Since it can determine the size of an object, it is able to distinguish between small objects (like shells) and large objects (like armour units). It can be operated in two modes. In the normal mode, only large objects will appear on the scope. In the fine mode, however, all objects, including shells, will appear. The Fine Mode is activated by pressing the f5 key on the Raven. Pressing this key again will switch the scope back to normal mode.

INVISO CLOAK GENERATOR: This device generates a field which makes the Raven invisible to all electromagnetic sensory devices. When active, enemy units will be unable to track the Raven. They will, however, have a fix on the Raven's last visible location. Furthermore, the Raven's location will be temporarily revealed whenever the cannon is fired. When the Invisio Cloak is activated, it will remain on for approximately 35 seconds, then it will automatically deactivate. Note that a large amount of energy (approximately 7,000 units or 17.5% of Energy Cistern capacity) is consumed by activation of this device. It should be used prudently.

(The original specifications for the Raven called for the Inviso Cloak to be manually deactivated. However, extensive research revealed that the best ratio of tactical flexibility to Inviso consumption of energy was achieved by having the Inviso activate for 35 seconds).

ZOOM LENS: This device permits long-range scanning through the viewscreen. It is most useful for identifying distant objects. However, it narrows the Raven's field of vision significantly. It is activated/deactivated on the C-type Raven by pressing the Z key on your control console.

SELF-DESTRUCT MECHANISM: Should your situation become hopeless, it is incumbent upon you to destroy the Raven before it can fall into enemy hands. Activating this mechanism will release all of the energy in the Cistern and cause the core of the Raven to implode. This mechanism is activated by pressing the CTRL and R keys simultaneously.

PROTONIC SHIELDS: The current strength of this defensive system is indicated on the blue gauge located on the right side of your viewscreen in the leftmost position. These shields are capable of absorbing almost all forms of energy: heat, kinetic energy, radiation, etc. Thus they provide protection against shells, lasers, and high speed collisions. Note that each time an enemy craft scores a hit on your shields, the shield energy is depleted slightly. Should all of your shield energy be entirely depleted, the core of the Raven will implode.

ENERGY CISTERN: The cistern holds approximately 40,000 units of energy. The current amount of energy within the cistern is indicated on the magenta gauge. Operation of the Raven at a basic level (life support on, shields up, and Agrav generator active) consumes 10 units/second. Activated systems use energy as follows:

ACTIVITY	ENERGY CONSUMED
Basic Systems	10 units/sec
Agrav Phase 1 (Forward movement)	10 units/sec
Agrav Phase 2 (Reverse movement)	5 units/sec
Arming of a shell	25 units
Inviso Cloak generator active	200 units/sec (7000 units/use)

Note that if the Energy Cistern should be entirely emptied, the core of the Raven will implode.

OPERATION ADVISORY

The following points have been gathered through extensive testing of the Raven in simulated combat situations.

A. Do not sit still or spin in place, always be moving. It is difficult for enemy units to track the Raven when it is moving. However, when the Raven does not move it becomes a very easy target to hit. (Exception: when there are no enemies present, and the Raven is waiting for enemies to appear, energy can be conserved by sitting still).

B. Use the Inviso Cloak prudently. It consumes vast amounts of energy and should only be used in dire emergencies. Generally, the Inviso cloak can be activated twice on a full cistern of energy.

C. Preserve fuelbays. Do not refuel at a fuelbay until it is time to warp to the next system, or until the Raven's shields or energy are nearly gone. Since fuelbays can be used only once, it is wasteful to refuel when the Raven is nearly at full strength.

D. Use the Zoom lens for short periods of time only. The Zoom lens narrows the field of view and thus increases the blind areas of the Raven window. Zoom should be used to identify and examine distant objects only.

E. Use the Fine Scope toggle. In fine mode shells and lasers appear on the scope. This is useful for dodging

as well as identifying which objects behind the Raven are firing, and hence dangerous. At times, when the scope is cluttered with many dots, it becomes useful to switch to normal mode to see which dots are actually enemies.

TACTICAL MANOEUVRES

VEER OFF: Move head-on at the target, fire, then veer off to avoid its shells.
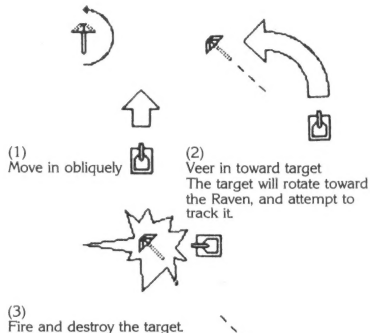
(1)
Fire at target,
begin to veer off

Enemy

(2)
Veer off
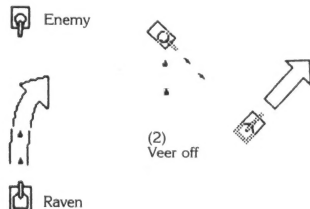
Raven

(3)
The enemy is hit, but the Raven has safely avoided enemy fire.

VEER IN: (Useful only against slow moving targets such as laser batteries)

(1)
Move in obliquely

(2)
Veer in toward target
The target will rotate toward the Raven, and attempt to track it.
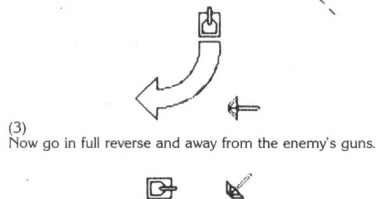
(3)
Fire and destroy the target.

THE MOVE: (This precision manoeuvre requires practice to be performed correctly. It is most effective against immobile enemies, but experts can also use it against a moving target. Move in to the side and past the target, forming an "S" path, then go in reverse in a semi-circle away from the enemy's gun until the enemy is in the Raven's sights.

(1)
Move in a straight line to the side of the enemy. The enemy will be rotating to track the Raven. The shots it fires will fall in the Raven's wake and miss.

(2)
Now move in an "S-Path" past the enemy. The enemy's tracking will begin to fall behind.

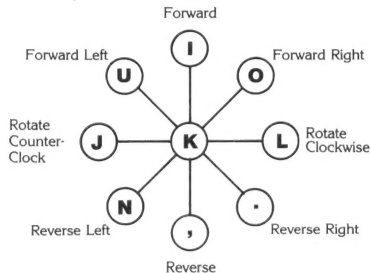
(3)
Now go in full reverse and away from the enemy's guns.

(4)
Now the rear or at least the flank of the target will be exposed to the Raven's cannon Fire at will.

FIRING IN THE INTERIM: (This manoeuvre is extremely dangerous and more often than not results in the Raven being hit. However, in desperate situations it may offer the best chance for survival.)
As the enemy fires at the Raven, veer away and dodge the incoming shells. At the instant that the enemy shells have passed the Raven, veer in and quickly fire on the target. With luck, the enemy will not be able to reload and fire before Raven's shells have destroyed it.

SUMMARY: The guiding principle for all of these manoeuvres is simple: **HIT YOUR TARGET WITHOUT GETTING HIT.** These are not the only manoeuvres

possible in combat situations. For every weakness of an enemy there is a corresponding tactical manoeuvre which will take advantage of that weakness. However, as the Raven has only been tested in simulated combat and not against Arcturan craft, it is up to you, Commander, to determine what tactics serve best.

RAVEN COMMAND SUMMARY

Keyboard controls are:

Forward

Forward Left

Forward Right

U   I   O

Rotate Counter-Clock J   K   L Rotate Clockwise

N   ,   .

Reverse Left

Reverse Right

Reverse

Keyboard controls are identical to those in the Raven diagram above.

Command	Joystick Mode	Keyboard Mode
Fire Cannon	Fire Button	Space Bar
Activate Inviso	Space Bar	RETURN Key
Zoom On/Off	f7 Key	f7 Key
Fine Scope	f5 Key	f5 Key

Special Commands:

Self-Destruct	CTRL-R
Pause Toggle	C - (Commodore Key)

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THE RAVEN MANUAL

Operation manual for Experimental Combat Vehicle XCV Ag1-2

Security Clearance 9

commodore 64

Type C (Commodore 64 Cassette): Press SHIFT and RUN/STOP key simultaneously. Press PLAY on cassette unit and program will load and run automatically.

Type C (Commodore 64-Disk): Turn on the disk drive. Turn on the computer. Type: LOAD "*", 8,1 and once the title page has been viewed, you will be presented with the following options:

Begin Mission	Space Bar
Mission Briefing	M
High Scores	S
Joystick	CTRL-J
Keyboard	CTRL-K